

ABSTRACT OF THE DISCLOSURE

According to a wireless communications system of the present invention, in a first terminal, a reception level measurement section measures a reception level of a transmission signal from a second terminal, and a data processing section retrieves a transmission level of the second terminal contained in the foregoing transmission signal and stores the transmission level in a storage section. The control section calculates a difference value between the transmission level and the reception level, and stores the calculated difference value in the storage section. Then, a relative distance estimation section estimates a relative distance between the first terminal and the second terminal in accordance with the difference value. Further, with a reception level of the second terminal which is contained in a transmission signal from the first terminal included in a transmission signal from the second terminal, a relative distance may be estimated in accordance with the reception level retrieved from the transmission signal by the data processing section and the known transmission level of the first terminal. This makes it possible to estimate a distance between mobile terminals in a wireless communications system in a wireless communications system free of a specific low-power radio system and fixed base stations.